

Clean amended claims:

1. Method for operating an electronic toll system for traffic routes, by using at least one cellular mobile communication system comprising a plurality of mobile radio cells, a toll terminal of a toll customer (1) in form of a terminal compatible with the mobile communication system, and at least one toll center (7) for conducting the toll transactions between the toll customer (1) and a toll operator (4), wherein the method comprises the steps of:

registering the toll customer (1) with the toll terminal at the toll center (7) before the start of a trip on road sections subject to toll by transmitting an identification of the toll customer (1) and booking of a toll route by transmitting information about a planned route, wherein the information includes at least one start point and one destination,

capturing and storing in the toll terminal a list of a sufficient number of mobile cells traversed during the trip for later verification of the booked toll route,

transmitting a message from the toll terminal to the toll center (7) at the end of the trip, wherein the message includes the list of the captured and stored mobile cells,

verifying the booked toll route by the toll center (7) based on a comparison between the list of the traversed mobile cells and data about the routing of the toll roads,

billing of the toll to be collected from the toll customer (1) based on the booked toll route and the predetermined tariff data.

2. Method for operating an electronic toll system according to claim 1, wherein after the toll customer (1) has registered with the toll center (7), a billing and/or toll information is transmitted from the toll center (7) to the toll terminal.

3. Method for operating an electronic toll system according to claim 1, wherein the toll center (7) computes the tolls to be collected when the booking information is received or when booked immediately before the start of the trip, and transmits the computed tolls to the toll terminal of the toll customer (1) together with a toll coupon.

4. Method for operating an electronic toll system according to claim 1, wherein the toll coupon includes the essential information of the booking in form of start point, trip destination, license plate number.

5. Method for operating an electronic toll system according to claim 1, wherein during registration the following additional contents are transmitted from the toll terminal of the toll customer (1) to the toll center:

- vehicle data for calculating the tolls
- a unique identification of the vehicle
- optionally intermediate points for identifying alternative routes
- planned start time

6. Method for operating an electronic toll system according to claim 1, wherein the toll center (7) defines along the booked toll route one or more intermediate checkpoints which correspond to one or several mobile cells located along the route, and wherein a list of the intermediate checkpoints is transmitted to the toll terminal.

7. Method for operating an electronic toll system according to claim 1, wherein the toll center (7) defines prohibited intermediate checkpoints which the toll customer (1) is not allowed to pass through.
8. Method for operating an electronic toll system according to claim 1, wherein the toll terminal, when detecting a mobile cell corresponding to an intermediate checkpoint or to a prohibited intermediate checkpoint, immediately transmits to the toll center (7) the content of the toll coupon or of another unique reference relating to the booked toll route.
9. Method for operating an electronic toll system according to claim 1, wherein the toll center (7) forwards received toll coupons or the subset of the data of the toll coupons relevant for a enforcement station (6) to the enforcement stations (6) responsible for the respective intermediate checkpoint.
10. Method for operating an electronic toll system according claim 1, wherein a change in the booked toll route by the toll customer (1) is implemented by transmitting the toll coupon and those checkpoints which have changed from the previous toll route.
11. Method for operating an electronic toll system according to claim 1, wherein the message transmitted to the toll center (7) upon arrival at the destination also includes the toll coupon.
12. Method for operating an electronic toll system according to claim 1, wherein the transmission of information between the toll terminal and the toll center (7) takes place via the

mobile communication system and/or other wireless or wired information systems.

13. Method for operating an electronic toll system according claim 1, wherein the toll fee is billed on a mobile radio invoice of the mobile radio customer (2) associated with the toll customer (1).

14. Method for operating an electronic toll system according to claim 1, wherein it can be determined by locating the toll terminal through the mobile radio operator (3) if the toll customer (1) has switched his toll terminal on or if the toll terminal is located in a plausible mobile radio cell.

15. Method for operating an electronic toll system according to claim 1, wherein the toll terminal is located by measuring the propagation time of the mobile radio signals.

16. Method for operating an electronic toll system according to claim 1, wherein the toll terminal is located by satellite positioning.

17. Electronic toll system for traffic routes, which uses at least one cellular mobile communication system comprising a plurality of mobile radio cells, and which comprises at least one toll terminal of a toll customer (1) in form of a terminal compatible with the mobile communication system and a toll center (7) for conducting toll transactions between a toll customer (1) and a toll operator (4), wherein the system includes the following components:

a data storage device in the toll center (7) for storing identification data of the toll customer (1) and a booked toll route based on information about a planned route, wherein the information includes at least a start point and a trip destination a memory in the toll terminal for storing a list of mobile radio cells, which are traversed during the trip and captured by the toll terminal, and which are sufficient for later verification a data processing unit in the toll center (7) for verification of the booked toll route of the toll customer based on a comparison between the list of mobile radio cells and data relating to the routing of roads subject to tolls, a billing unit for billing the toll to be collected from the toll customer (1) based on the booked route and predetermined tariff data.

18. Electronic toll system according to claim 17 wherein a special SIM card provided with a toll-client application is used in the terminal employed by the toll customer (1).

19. Electronic toll system according to claim 17 wherein a SIM card with a standard SIM card is employed used in the terminal employed by the toll customer (1), wherein the toll-client application is implemented in form of a SAT application.

20. Electronic toll system according to claim 17 wherein the terminal employed by the toll customer (1) includes special application software designed for the toll system, in particular a Java applet.

21. Electronic toll system according to claim 17, wherein the booking information to be transmitted from the toll customer (1) to the toll center (7) is preconfigured via an Internet portal so as to support and facilitate subsequent input via a toll terminal.

22. Electronic toll system according to one of the preceding claims 17 wherein toll routes frequently traveled by the toll customer (1) are permanently stored at the toll center (7) and can be recalled by using a reference number.

23. Electronic toll system according to claim 17, wherein to check if the booked toll route is adhered to, intermediate checkpoints are defined, whose number and location are independently defined for each toll route without providing this information to the toll customer (1).

24. Electronic toll system according to claim 17, wherein for verifying if the booked toll route is adhered to, facilities are provided that provide to the road infrastructure operators (5) information regarding captured toll trips and/or checkpoint crossings for the controlling agencies (enforcement 6).